

had such a striking macroscopic resemblance to myxomycete fruiting bodies that they were collected as Myxomycetes. The former is found on rotting wood and sticks, the latter covered extensive areas on hand hewn boards of Shasta fir.

In the following table, forty-seven entities are listed. Of these, thirty-seven occur in the Shasta fir zone and thirty-one have been found on Shasta fir. In this group of organisms, species are not known to be restricted to host or to substrate. They do not necessarily fruit on the substrate from which they received their nourishment.

Zones in which these species were found have been discussed earlier (Cooke, W. B., The problem of life zones on Mount Shasta, Madroño 6: 49-56. 1941). In the above table these zones are indicated by the following symbols:

<i>Pinus-Libocedrus-Pseudotsuga-Abies</i> zone	
Chaparral association (seral)	C
<i>Pinus-Libocedrus-Pseudotsuga-Abies</i> association	M.C.
<i>Abies concolor</i> zone	Ac
<i>Abies-Tsuga</i> zone	
<i>Abies magnifica</i> var. <i>shastensis-Tsuga mertensiana</i> association	A.T.
<i>Abies magnifica</i> var. <i>shastensis</i> association	Ams
<i>Pinus albicaulis</i> zone	Pa
Alpine zone	A

A complete series of these species is in the herbarium of the State University of Iowa at Iowa City. Partial sets are filed at the University of California, Berkeley; the New York Botanical Garden; the University of Cincinnati; the Farlow Herbarium, Harvard University; Mycological Collections, Bureau of Plant Industry, Soils and Agricultural Engineering, Beltsville, Maryland; and in the writer's herbarium.

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## A NEW POLYGONUM FROM OREGON

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**Polygonum cascadense** sp. nov. Annuum; caulis 0.4-1.5 dm. altus, internodi breves; folia 5-15 mm. longa, oblanceolata, oblonga, obovata vel lineari-oblonga, sessilia; inflorescentia densissima, 4-5 floribus axillaribus; perianthia alba vel rosaceotincta; costa distincta; pedicellis erectis; stamina 8, antheris purpureis, filamentis basi dilatis; achaenia 3 angulata, 2 mm. longa, ovoidea vel ovoidea-oblonga, laevia, nigrescentia, inclusa vel paulo exserta.

Glabrous or slightly scurfy, wiry, light green annual; stem 0.4-1.5 dm. tall, angled, ridged or roughened between the angles, simple and erect or divergently branching at and above the base,



PLATE I. *Polygonum cascadense* sp. nov. Photograph of the type specimen before pressing. Approximately  $7/8$  natural size. (Photograph by Mr. John C. Garman).

internodes short or slightly elongated; nodes somewhat enlarged and covered by the reddish-brown bases of the ochreae; ochreae transparent and lacerate above, 2 mm. long, leaves numerous, quite evenly distributed on the stem, 5–15 mm. long, oblanceolate,



FIG. 1 *Polygonum cascadense*: 1, opened bud with pistil removed; 2, fruit; 3, stamen, dorsal view. All  $\times 13$  diam. (Drawings by Helen M. Gilkey).

oblong, or obovate to broadly linear-oblong, sessile, not greatly reduced upwards, apex acute, margins revolute; inflorescence of usually 4–5-flowered axillary clusters occurring the length of the stem; perianth white or pinkish, each lobe with a broad pink or reddish, or narrow greenish band; pedicels erect, 2 mm. long; stamens 8, included; filaments white, conspicuously dilated at base; anthers purple; styles 3-parted almost to the base, included, 6 mm. long; achene triquetrous, 2 mm. long, ovoid or ovoid-oblong, not constricted at apex, black, smooth, shining, included to slightly exerted.

Type. South slope of Fairview Mountain, Calapooya Range, Lane County, Oregon, 28 September 1947, *Baker 5129* (OSC). Additional collections: OREGON. Klamath County: Crater Lake, *Anderson & Simpson 116* (OSC). Lane County: meadow on South Fork of McKenzie River 22 miles above Bridge, *L. F. Henderson 16698* (Ore.); south slope of Fairview Mountain, Calapooya Range, 17 September 1946, *Baker 3339* (Herb. Baker).

The known range is from McKenzie Pass to Crater Lake in the Cascades and in the Calapooya Range. The plant grows on rocky slopes at 1800 meters elevation on the south slope of Fairview Mountain and the east slope of adjacent Bohemia Mountain; it appears to be late flowering at these stations.

A member of the subgenus *Avicularia*, the new species has been confused with other members of *Polygonum*, but appears to be most closely related to *P. Nuttallii* Small. From this species it differs in having broader leaves, shortened internodes, more numerous flowers in all the cauline leaf axils, a white or pinkish calyx with a pink, reddish, or greenish band on each lobe, and more obtuse achenes.

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